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A Suture "Retractor": A Technical Aid for Bucket-Handle Meniscal Resections

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Summary: Meniscal repair, healing, and survival have been demonstrated in the literature. Meniscal preservation is, however, not always possible. We present a technique that may aid the surgeon in difficult bucket handle resections by stabilizing a portion of the meniscus with a "suture retractor" prior to resecting either a posterior or anterior meniscal horn. This technique may also be modified to prepare the inner rim when one is performing meniscal repair.
Key Words: Meniscus—Meniscal repair—Suture retractor.

This article describes a technical trick that we have employed in the resection of difficult bucket-handle meniscal tears. Additionally, a modification of this technique may be used for displacing an unstable meniscus and allow access to the cleavage portion of the tear for insertion of fibrin clots in preparation for meniscal repairs.

At times, resection of displaceable, unstable bucket-handle tears can be difficult. We have found that arthroscopic placement of a suture retractor using a zone-specific meniscal repair cannula allows the surgeon to use the suture as a manual suture retractor, thus stabilizing the meniscus and allowing better access to the anterior or posterior horns of the meniscus (Fig. 1). In general, we prefer to resect the posterior axilla of the meniscal tear and then proceed to divide the anterior axilla. In unstable bucket-handle meniscal tears, division of the anterior or posterior axilla may result in difficult visualization and difficulties in maintaining tension on the meniscal fragment, thus making resection of the opposite axilla more difficult. The suture retractor (Fig. 2) allows the surgeon to maintain tension on the body of the meniscus as both axillae are divided arthroscopically.

Modification of this suture retractor technique can be used when preparing the meniscus for a meniscal repair. A suture can be passed through the meniscus using a zone-specific cannula, and an arthroscopic probe can then be used to bring the su-

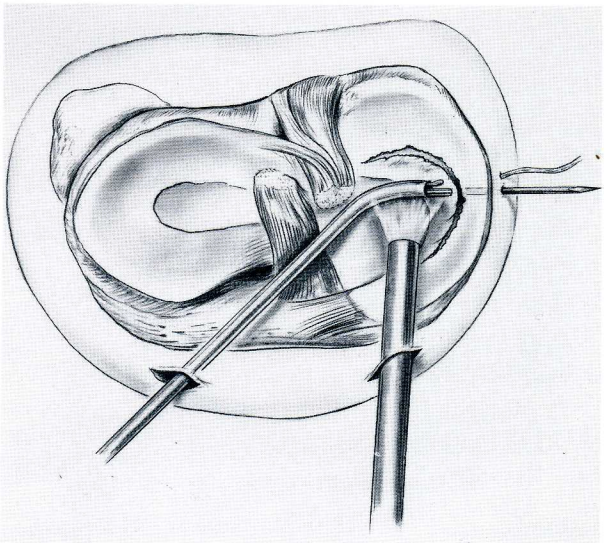

FIG. 1. Placement of one suture to stabilize the meniscus, allowing better visualization for precise cuts for partial meniscectomy.

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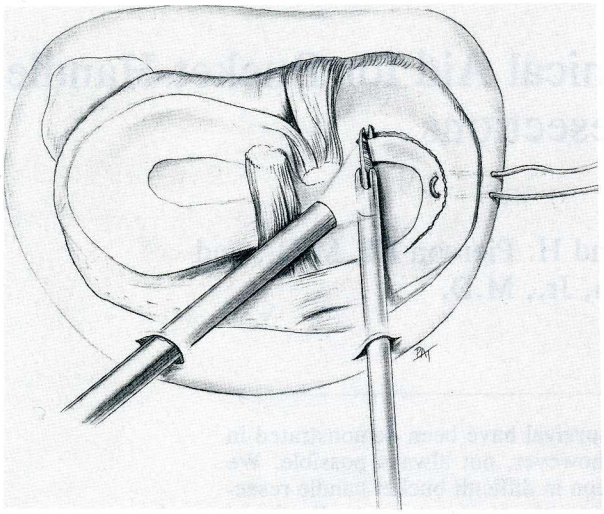

FIG. 2. The unstable meniscus is easily held reduced while the posterior cut is made under direct vision.

tures back through an inframedial working portal. In this fashion, the surgeon can manually place tension on the sutures with the meniscus displaced. This will provide access to the meniscal tear interval and allow the surgeon to prepare this for subsequent meniscal repair. This may facilitate synovial fringe irritation, meniscal tear interval preparation, or fibrin clot insertion. Once this has been performed, the meniscus can then be reduced and standard techniques for meniscal repair can be initiated.

We have found placement of an arthroscopic suture "retractor" aided by the use of a zone-specific meniscal cannula in an inside-out fashion to be an easy and technically safe technique. We have found this to be very helpful in assisting resections of the unstable bucket-handle meniscal tear that do not warrant repair or in the use of preparation for meniscal repair.